- 1. We are pleased that Paragon Technical Services, Inc. (PTS) agrees that four important job titles should be added to Exhibit 15-4 of DEEOICP PM 4.3 (p. iii).
- 2. We agree with the opinion of PTS that three selected job titles have no relevance to DOE (p. iii).
- 3. We note that the PTS report refers to Generic Profiles (p. 2). We request access to these profiles.
- 4. We note that there is an Asbestos Generic Profile (cited on p. 2 of PTS report) that addresses asbestos exposure of certain work processes associated with job titles, including Janitorial activities, Laundry, Power/Communication line maintenance. These job titles are not listed in Exhibit 15-4 of DEEOICP PM 4.3. We request the Asbestos Generic profile in order to understand how asbestos exposure is addressed for these work processes/job.
- 5. The PTS report argues against presumptive asbestos exposure for some occupations identified in the National Occupational Mortality Surveillance (NOMS) as having excess mesothelioma risk on various rationales: 1) asbestos does not appear for the occupation in the SEM; b) some job titles in NOMS encompass work in diverse industries that may have limited and uncertain relevance to work at DOE sites; c) some job titles may not have widespread exposure to asbestos across many job settings; or d) the occupations are infrequent at DOE. These points make sense, subject to the caveats discussed below. PTS suggests that DOL review the death certificates from the NOMS for these job categories, which may be challenging due to data privacy issues and is unlikely, in the instances when the numbers of deaths are limited, to provide definitive answers. We do not recommend pursuing the review of NOMS death certificates.

Malignant mesothelioma (MM) is a very uncommon cause of death, even in industries and occupations where asbestos was routinely used. The notion that asbestos exposure in a limited subpopulation of a Standard Occupational Classification (SOC) occupational category confined to one or a small number of industries where the specific SOC is active is responsible for an elevated mesothelioma Proportionate Mortality Ratio (PMR) becomes less tenable when a) the Proportionate Morality Ratio (PMR) is substantially elevated (PMR \geq 250), and/or b) the numbers of deaths are considerable (\geq 30). Reviewing the NOMS PMR output provided in Table 3 of our recommendation, occupations meeting these criteria include: Chemical Engineers (PMR = 449; # MM deaths = 30); Industrial, Health, & Safety Engineers (PMR = 259; # MM deaths = 30) and Mechanical Engineers (PMR = 250; # MM deaths = 50). We believe that PTS should re-consider the issue of presumptive asbestos exposure for these three occupations.

One of the reasons that PTS cites for not linking asbestos exposure to certain job categories is the failure of asbestos to appear in the SEM as a potential exposure for those

occupations. It is uncertain if the SEM routinely recognizes bystander exposures, raising the question about whether the SEM can be expected to reliably link asbestos exposure to occupations whose only exposure was bystander in nature. This may well apply to the 3 job categories cited above: chemical and mechanical engineers and health and safety engineers. It seems quite likely that documentation provided by the DOE and, thus, the SEM, would not address bystander exposures.

We recommend that PTS re-examine the issue of presumptive asbestos exposure for Chemical Engineers, Industrial, Health, & Safety Engineers, and Mechanical Engineers.

6. The logic behind the rejection of "Maintenance and Repair, General Helper" as presumptively asbestos-exposed is unclear, since most maintenance workers and repair workers whom the general helpers assist will now be covered in the enlarged list of Exhibit 15-4. The SEM doesn't appear to have this job title at many DOE sites. Are they considered by claims examiners as part of the maintenance workers and repair workers whom they assist? Or are they placed in a general category of "laborer"? If the latter, are they included in Exhibit 15-4?